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ABSTRACT

An evaluation was made of four Head Start bilingual/multicultural curriculum models to assess their effectiveness and impact on children, staff, and parents. Intended as a pre-post design (with 90 children at each of eight Head Start replication sites and with treatment and control groups stratified on the basis of Spanish or English language preference, age, sex, and prior preschool experience), the study was conducted on an incompletely randomized sample of 243 experimental-group and 199 comparison-group children. Child competency measures assessed socioemotional development and Spanish and English language production, comprehension, and concept development. Parent interviews assessed attitudes and knowledge about education, expectations and aspirations regarding the child's educational achievement, and parental involvement in the child's education. Surveys of Head Start classroom staff focused on the staff's understanding of bicultural/bilingual children and their attitudes and sensitivity towards these children as well as their ability to appropriately modify instruction. Implementation forms, ethnographic notes, and focused observation of individual children were also used to gather data. Analyses of variance and covariance assessed differences in test performance of experimental and comparison children. Contrasts were made at the level of the overall study sample, at the level of the combined sites, and at the level of the individual sites. Results and their implications are discussed. (RH)

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A SUCCESS STORY

The Evaluation of Four Head Start Bilingual Multicultural Curriculum Models

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A Success Story

The Evaluation of Four Head Start Bilingual Multicultural Curriculum Models

Educational theorists have developed numerous curriculum models and theoretical approaches designed to promote learning processes in children. In order to substantiate a proposed learning strategy, an evaluation of effectiveness must occur. The purpose of this article is to present a success story of the evaluation of four Head Start bilingual multicultural curriculum models.

Many questions arise in an attempt to adequately meet the needs of the culturally and linguistically diverse populations of the United States. Specifically, a major concern was expressed in 1975 and acted upon by the Office of Child Development - now ACYF (Administration for Children, Youth, and Families) - to address the needs of limited English speaking preschool children. A comprehensive program was established under the auspices of the Head Start Strategy for Spanish Speaking Children. Approximately 20 percent of the total child population currently served by Head Start is Spanish surnamed. Because of this significant population, many basic questions are in need of resolution. What constitutes a sound bilingual multicultural preschool program? What curricular strategies are effective in introducing first and second languages? What are the effects of using two languages at an early age? Will a child's cognitive development be hindered by the use of two languages in the classroom? As a result of a lack of data and in an attempt to respond to these questions, the Head Start Strategy for Spanish Speaking Children embarked upon a multiyear demonstration and research effort.

To meet the needs of the significant Hispanic population, the Strategy sought to build a capacity for Head Start programs to implement sound developmental childhood bilingual multicultural programs. To accomplish this goal, four relatively underdeveloped areas were addressed (Arenas, 1977):

1. Curriculum development
2. Staff training
3. Resource networking
4. Research

The work in the area of curriculum development focused primarily on the design of four bilingual multicultural curriculum models. The rationale for the development of four models was based on the premise that no one curriculum model would meet the needs of all Head Start programs designed to serve culturally and linguistically diverse populations. In 1976, ACYF funded four institutions - the University of California at Santa Cruz; Columbia University, New York; High Scope Educational Research Foundation, Ypsilanti, Michigan; and the Intercultural Development Research Association, San Antonio, Texas - to develop a curriculum model based on the following requirements:

1. Sound theoretical knowledge of child development and an observably distinct educational approach
2. An enhancement approach to bilingual multicultural education - no model was to be based on a deficit approach
3. Be consistent with Head Start Performance Standards and provide whenever possible for the integration of all Head Start component areas - education, parent involvement, and health and social services
4. Provide learning activities for the development of basic skills in cognitive, socio-emotional and psycho-motor areas, and in English and Spanish language development

5. Identify how children would be exposed to the two languages and describe the procedures to be used in deciding which language would be used when, by whom, and for what purpose
6. Illustrate the definition of "multicultural education" to be implemented in the curriculum model, including a description of the cultural goals and sample learning activities
7. Be usable in a variety of preschool settings, including Head Start, day care centers, and nursery schools
8. Be sufficiently flexible and adaptable for use in multicultural settings (Arenas, 1980)

Although the four models adhere to the above requirements, they each have unique characteristics. They are based on different early childhood education philosophies. The High Scope curriculum model, Un Marco Abierto, is based upon the developmental theory of Jean Piaget. The model designed by the University of California at Santa Cruz, Nuevas Fronteras de Aprendizaje, is based on two different contrasting cognitive styles which directly affect learning processes. The Alerta model of Teachers College at Columbia University is based upon the credence that growth occurs through a process of higher complex systems employed when thinking, feeling, and acting, and that the environment significantly affects a child's growth. Amanecer approaches learning from an eclectic theoretical base that calls for the building upon previous knowledge to greater levels of complexity, i.e. simple to complex.

The curriculum effort is supported by a sequential training system and support materials from the Head Start Bilingual Multicultural Resource Center Network. Site staffs were initially trained by the curriculum developers. Highly experienced technicians currently train in sites throughout the nation through the Resource Center Network.

The fourth element of the Strategy was to research the effectiveness of the curricula. The evaluation of the four models was undertaken in 1978 and conducted by Juarez and Associates under a three-year contract with ACYF.

Goals of Curriculum Evaluation

The evaluation of the curriculum models was undertaken concurrently with the development, piloting, and implementation activities of the model developers. The purpose of the evaluation was to assess the effectiveness of the four models and the impact on children, staff, and parents. More specifically, the evaluation design required collection of information on the following:

1. The extent to which the models, once implemented, were meeting their objectives. The major emphasis of the evaluation was on measuring the change in children's language development (both Spanish and English) and in cognitive and socio-emotional development, as a result of their participation in one of the four curricula.
2. The extent to which the models were accepted favorably by Head Start staff, parents, and the community.

Study Design

The design of the curriculum evaluation employed a multi-method data collection process. Data were gathered through the administration of standardized instruments and through on-site naturalistic observations. This methodology was used in an effort to facilitate the drawing of relationships between program procedures and outcome measures.

The evaluation was intended as a pre-post design with 90 children at each of the eight Head Start replication sites (two sites for each of the four models). At each site forty-five children were planned for assignment to a treatment group and forty-five to a control group. Children were to be stratified on the basis of

language preference (Spanish or English), age, sex, and prior preschool experience. Total randomization of children into control and experimental groups was not totally achievable at some sites due to uncontrollable external variables. Over 70 percent of the total comparison group received some type of Head Start experience. Due to attrition, the final evaluation sample consisted of 442 children distributed across eight sites. There were 243 children in the experimental group and 199 children in the comparison group.

Children classified as Spanish dominant with limited English proficiency numbered 274 and 168 were classified as English dominant with limited or no Spanish proficiency. The latter group consisted of Hispanic, Black, and Anglo children.

All children were tested on selected competency measures at the beginning of the treatment (Fall, 1979) and its conclusion (Spring, 1980). Child competency measures were administered in the areas of: (1) English language production, (2) Spanish language production, (3) English language comprehension, (4) Spanish language comprehension, (5) concept development in English and Spanish, and (6) socio-emotional development.

Measures of impact were also administered to parents and Head Start classroom staff. Parent interviews assessed: (1) attitudes and knowledge about education, (2) expectations and aspirations regarding their child's educational achievement, and (3) involvement in the child's learning experiences in both the preschool setting and at home. Head Start classroom staff completed a questionnaire designed to provide information on: (1) their understanding of bilingual multicultural education, (2) their attitudes toward Spanish dominant and bilingual children and their parents, (3) their willingness to include parents in the classroom instructional activities, (4) their sensitivity to the special ethnic and linguistic characteristics of Spanish dominant and

bilingual children and their ability to incorporate these characteristics in a positive fashion in the teaching process. Parent and teacher interviews were conducted twice, at the beginning and at the end of the preschool year.

In addition to the use of tests and interviews to gather the data, the evaluation's design included an extensive observational component. At four sites (one for each model) a full-time researcher was present for the entire year. At the other four sites, a researcher gathered data during three-week periods. Each of these researchers gathered data through the use of implementation forms and ethnographic notes. The four full-time researchers also conducted focused observations of individual children (five children from each site) by means of time and event samples. The observational data collected on the children under this component focused on the children's language acquisition, comprehension and production, concept development and socio-emotional development.

The data collected by the researchers on the curriculum implementation focused on what teachers did in the classroom, the physical organization of the room, available classroom materials, and other topics of interest.

Assessment Instruments

Language Acquisition	- Bilingual Syntax Measure
Language Comprehension	- "Circo"/Circus - "Escuchen Este Cuento" Listen to the Story
Concept Development	- Preschool Inventory
Perceptual Motor Development	- Preschool Inventory
Socio-emotional Development	- Tester Checklist

Parent Interviews

The parent instrument consisting of 56 items was developed by Juarez and Associates.

Teacher Questionnaire

This questionnaire was also developed by Juarez and Associates. It consists of a series of 23 items.

Data Analysis

Analyses of variance and covariance were used to assess differences in test performance of experimental and comparison children. Contrasts were made at the level of the overall study sample, at the level of the combined sites, and at the level of the individual sites.

Research Findings

Findings for children. - Research findings indicate that the effects of the bilingual multicultural curriculum models were strongest for Spanish preferring children. As a whole, the children with the least ability in English showed the most significant gains. Another important finding is that the English monolingual children who participated in the experimental programs were not hindered by participation in a bilingual program. They performed as well as monolingual children in regular Head Start programs.

Spanish preferring children. - Experimental children as a whole performed significantly better than comparison children on:

1. English language acquisition
2. Concept manipulation in English
3. Tests of perception

Experimental children as a whole showed significant gains over the comparison children on tests of:

1. Spanish language production
2. Use of grammatical forms in Spanish
3. Manipulation of concepts in Spanish

They performed as well as the comparison children on all other tests.

English preferring children. - Experimental children, when compared with control children in programs not using a bilingual model, performed as well on tests in English.

Experimental children as a group scored at near zero on most Spanish tests at the end of the year. Their use of Spanish was largely limited to repeating words and phrases during structured classroom activities.

Classroom observational data substantiate the data derived from standardized instruments.

Findings for parents. - Mothers of children in both experimental and comparison groups expressed positive attitudes toward the educational system and bilingual education.

Parents who lived in the immediate vicinity of the Head Start center became involved in classroom activities. Lack of transportation and distance from the center impeded parental participation.

Findings for teachers. - Classroom staff expressed favorable attitudes toward the bilingual curriculum models with which they were working.

Classroom staff viewed the social value of bilingual education as its major advantage.

Findings on implementation of curriculum models. - Several factors were found to consistently influence the success of the model implementation process:

1. Adherence to a planned schedule, room arrangement, and use of instructional materials
2. A balanced use of Spanish and English in the classroom

3. Implementation of the language strategies outlined by the model being used
4. Trained bilingual staff

Findings on feasibility of transfer of the curriculum models. - The bilingual multicultural models were found to be adaptable to different geographical and cultural settings. The models functioned within a variety of administrative structures with different types of Head Start centers and with different schedules. They were implemented with public schools, churches, and community organizations with either half- or full-day sessions. Ethnic makeup of the students being served included Mexican American, Puerto Rican, Black, and Anglo children (Chesterfield and Chavez, 1981).

Implications of Findings

One of the most significant findings in this study is that children with limited English speaking ability enrolled in Head Start bilingual multicultural programs made significant developmental gains over similar children in regular Head Start programs.

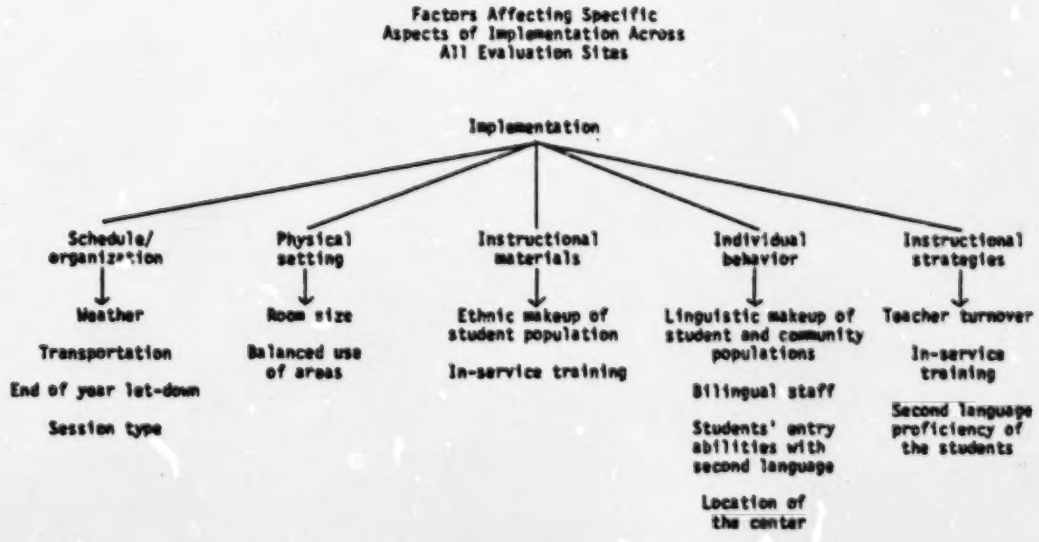
Of equal importance are the data which show that English monolingual children in bilingual programs do not experience adverse developmental effects as a consequence of participating in a bilingual program. This was also supported by a longitudinal study by King (1976) in which he found that bilingualism has no adverse affect on language development or on the acquisition of knowledge and concepts related to the areas of social studies, science, or on I.Q. score attainment. Rogers (1973) found that a bilingual program produced higher self concept for both Spanish speakers and English speakers. Therefore, research has shown nondetrimental and often positive effects for English speakers, as well as for non-English speakers.

Attributable Success Factors

As a result of the positive outcomes of the Juarez study, it is important to review the factors to which the successes can be attributed. Factors such as trained bilingual staff, a consistent classroom management system, consistent use of dual language instructional strategies, and the availability of bilingual multicultural materials are considered essential to the significant effectiveness levels that were achieved.

Teachers with sufficient verbal skills in Spanish and English to implement the preschool program were available. Also, the consistent classroom management systems have been applauded by Head Start teachers and administrators.

A series of factors affecting the implementation processes were identified and serve as a valuable reference source for those interested in the implementation processes of one of the curricula. These factors are presented in the figure that follows (Chesterfield and Chavez, 1981, p. 18):



These factors would seem significant to any curriculum implementation process in a multicultural preschool setting.

The consistent use of dual "language strategies' suggested by the models was the aspect of programming most related to positive child outcomes" (Chesterfield and Chavez, 1981, p. 25). This conclusion strongly supports the importance of the bilingual strategies proposed by the models. The bilingual component of the daily schedule is a crucial aspect of children's successes. The significance of the incorporation of the home culture and language into the curriculum is emphasized by many educational psychologists and theorists (Ramirez and Castañeda, 1974; Rivera, 1973; Lopez, 1972; et.al.). This is especially important for the child who is initiated into the world of formal education in the preschool setting. The psychological crises that are created for the child coming from a warm nurturing environment and thrust into foreign surroundings - multiplied by an inability to understand the code of communication - can be traumatic. The acceptance of the home value system in the preschool setting is a matter that warrants meaningful concern.

Reyes (1976, p. 57) states, "Self concept is so crucial in the school setting that many educational psychologists and educators believe that positive self concept is the condition 'sine qua non' for learning to take place." Purkey (1970) summarizes his position by stating that "the overwhelming body of contemporary research points insistently to the relationship between self esteem and academic achievement." For these reasons, if we are truly promoting a "Head Start" for our children, we must begin with relevant curricula supported with adequate human and material resources.

The four models and the Juarez evaluation present us with a sound approach to preschool bilingual multicultural education that works. The factors affecting implementation are presented providing educators with data indicating areas of

concern for the curriculum implementer, developer, and administrator. This research provides persons responsible for preschool curriculum development and implementation with a solid structural linkage between theory and practice towards enhanced quality in preschool education in America.

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* The Technical Reports and Executive Summary will be available through the ERIC system.